

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-23 (canceled)

Claim 24 (new) A method for filling a tire cavity comprising:

grinding cured polyurethane into core bits in a grinding device having an outlet;
transferring ground core bits from the outlet to an adjacent elongated screw device;
mixing core bits and a liquid virgin polyurethane in the elongated screw device;
pressurizing and transferring the mixed material into the core of a tire; and
electronically controlling the grinding device and the elongated screw device.

Claim 25 (new) The method of claim 24 further comprising transferring at least one unused flatproofing material from at least one holding tank using a transfer component connecting each holding tank to a mixing device and a transfer apparatus connecting the mixing device to the elongated rotatable screw device.

Claim 26 (new) The method of claim 24 further comprising the step of grinding the core bits to an average diameter of less than .125 inches.

Claim 27 (new) The method of claim 24 further comprising the step of grinding cure polyurethane into particles larger than core bits and transferring said particles to the grinding device.

Claim 28 (new) The method of claim 24 wherein said mixing is completed in a first section of the elongated rotatable screw device.

Claim 29 (new) The method of claim 28 wherein said transferring is completed in a first of section of the elongated rotatable screw device.

Claim 30 (new) The method of claim 28 further comprising transferring at least a single stream of unused flatproofing material to said elongated screw device.

Claim 31 (new) The method of claim 28 further comprising transferring multiple streams of unused flatproofing material to said elongated screw device.

Claim 32 (new) The method of claim 24 further comprising sensing pressure in tire cores.

Claim 33 (new) The method of claim 32 further comprising puncturing tires to relieve excess pressure.

Claim 34 (new) The method of claim 24 further comprising cleaning the grinding device and the elongated screw device.

Claim 35 (new) The method of claim 33 further comprising electronically controlling the sensing and puncturing.

Claim 36 (new) The method of claim 34 further comprising electronically controlling the cleaning of the grinding device and the elongated screw device.

Claim 37 (new) The method of claim 25 further comprising electronically controlling the mixing in said mixing device.